

## Claims;

1. An ink-jet recording method comprising the step of;  
providing an ink to an ink receiving sheet,  
wherein the ink comprises fine resin particles, a  
water-soluble dye, water and an organic solvent, and the ink  
receiving sheet comprises a support and a porous ink  
receiving layer having pores provided on the support, and  
the ink and the ink receiving sheet satisfy the  
following formula

$$|D_{L10} - D_{M50}| \leq 170 \text{ nm},$$

wherein  $D_{L10}$  is the particle diameter at which 10 percent of the fine resin particles in number have a diameter from a minimum diameter  $D_{L0}$  up to and including  $D_{L10}$ , and  
 $D_{M50}$  is the pore diameter measured using a mercury porosimeter at which 50 percent of the pores in volume have a diameter from a minimum diameter  $D_{M0}$  up to and including  $D_{M50}$ .

2. The ink-jet recording method of claim 1, wherein  $D_{L10} - D_{M50}$  is not more than 65 nm.
3. The ink-jet recording method of claim 1, wherein  $D_{L10} - D_{M50}$  is not less than 0.

4. The ink-jet recording method of claim 1, wherein  $D_{M50}$  is not less than 20 nm.

5. The ink-jet recording method of claim 1, wherein polydispersity index (PDI) of the particle diameter distribution of the fine resin particles in the ink is from 0.1 to 0.3,

$$PDI = (D_{L90} - D_{L10}) / D_{L50}$$

wherein  $D_{L10}$  is the particle diameter at which 10 percent of the fine resin particles in number have a diameter from a minimum diameter  $D_{L0}$  up to and including  $D_{L10}$ ,  $D_{L50}$  is the particle diameter at which 50 percent of the fine resin particles in number have a diameter from a minimum diameter  $D_{L0}$  up to and including  $D_{L50}$ , and  $D_{L90}$  is the particle diameter at which 90 percent of the fine resin particles in number have a diameter from a minimum diameter  $D_{L0}$  up to and including  $D_{L90}$ .

6. The ink-jet recording method of claim 1, wherein an average particle diameter of the fine resin particles in the ink is from 10 to 150 nm.

7. The ink-jet recording method of claim 1, wherein the ink receiving layer contains fine resin particles.
8. The ink-jet recording method of claim 1, wherein  $D_{M50}$  in the pore diameter distribution curve in the ink receiving layer is from 15 to 40 nm.
9. The ink-jet recording method of claim 1, wherein minimum film forming temperature (MFT) of the fine resin particle in the ink is from 0 to 60 °C.
10. The ink-jet recording method of claim 1, wherein surface roughness of the ink receiving layer is not more than 10 nm.
11. The ink-jet recording method of claim 1, wherein the support of the ink receiving sheet has a continuous layer of a thermoplastic resin.